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TITLE: A Neighborhood-Based Intervention to Reduce Prostate Cancer Disparities

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14. ABSTRACT Background: The goal of this study is to develop an educational intervention about prostate cancer (PCa). The intervention will be targeted to at-risk men in neighborhoods with poor PCa outcomes. Methods: After utilizing Pennsylvania cancer registry data to identify 4 high risk PCa neighborhoods in Philadelphia, we conducted a focus group of at-risk men (N=26, ages 40-69) in each of the neighborhoods. We developed PCa educational materials and trained 8 Community Health Workers from high risk neighborhoods to provide small group education for men from the neighborhoods. We also began recruitment and sessions to test the PCa educational intervention. Results: Focus group participants had limited understanding of PCa and screening modalities, but recognized the importance of early detection. They articulated that peer- to-peer education focused on general health was highly desirable. Study recruitment and testing of the educational intervention is in progress. Conclusion: Methods for identifying highest risk neighborhoods and training community health educators to disseminate information to at-risk men may be effective for decreasing PCa disparities.					
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1. Introduction

Research shows that men who reside in low-income neighborhoods are less likely to be screened for PCa and more likely to have aggressive forms of PCa. Given these facts, it can be surmised that men who live in economically deprived neighborhoods are at high risk for poor PCa outcomes due to delayed timing of detection and the nature of the disease. Given that screening recommendations present conflicting guidelines while suggesting that additional research of high risk populations is needed, many men, particularly those living in low-resource neighborhoods, are not equipped to make informed decisions about screening. The neighborhood can serve as a key setting to recruit at-risk men for a neighborhood-based study that aims to increase knowledge and informed decision making about PCa screening. This study has the potential to lead to higher informed decision making about PCa screening in populations of men that are most susceptible to PCa, perhaps reducing PCa disparities related to late disease presentation. The short-term goal of this project is to increase PCa awareness and prompt shared decision making about screening. The long-term goal is to prevent advanced disease and decrease PCa mortality in high risk neighborhoods. We plan to eliminate barriers to PSA screening and provide men with tools that can be used to engage themselves with health professionals and neighborhood members in caring for future health concerns. By targeting high risk neighborhoods (those with the highest rates of advanced PCa in Philadelphia), we are most likely to impact the population that will benefit the most from PCa screening and targeted intervention focused on PCa education and the informed decision making process.

Specific Aim 1: To identify neighborhoods with disproportionately high rates of advanced prostate cancer and describe patient- and neighborhood-level risk factors associated with the high risk neighborhoods

Specific Aim 2: To develop, using a mixed methods approach, a targeted educational intervention about prostate cancer for men who live in high risk neighborhoods

Specific Aim 3: To test the impact of the targeted intervention on levels of knowledge, anxiety, and informed decision making about PCa screening

Sub-aim 4: To observe the rates of PCa screening in the intervention and control groups

2. Keywords

Prostate Cancer; Neighborhoods; Focus Groups, Community Health Workers

3. Accomplishments

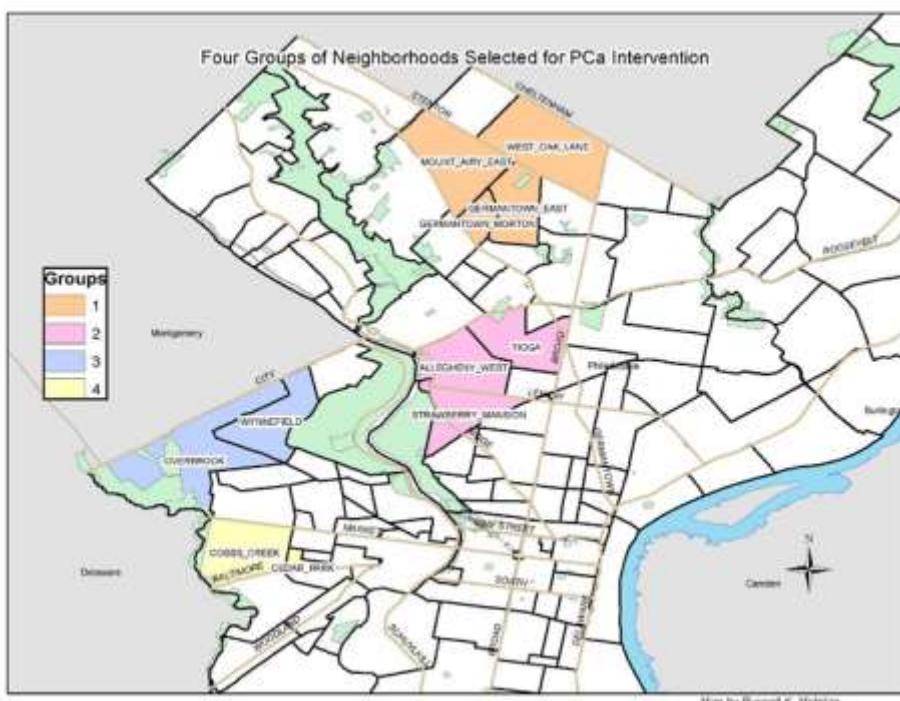
3.a. MAJOR GOALS OF THE PROJECT / RELATED ACCOMPLISHMENTS

Statement of Work – Year 2

Major Goal 2: Elicitation Phase

- Conduct Focus Groups
 - Focus groups were completed September 2016. Twenty-six men participated in the focus groups: 7 from West Philadelphia/Overbrook, 7 from Lower North Philadelphia, 7 from Germantown/West Oak Lane, and 5 from Southwest Philadelphia/Cobbs Creek (Figure 1). The mean age of the men was 52 years old and all were African American (reflecting the population of the neighborhoods). Seventeen were single and 9 were married or living with a partner. Eleven had a high school diploma, while the remainder (n=16) had completed some college, vocational training, or technical school. Six men were employed full time, 6 were retired, 5 were on disability coverage, and the remainder (n=10) were employed part time or were looking for work. This group of men was generally health conscious, with 19 of the 27 reporting that they see their health care provider regularly. Fifteen of the 27 reported having no family history of prostate cancer (those with a personal history of prostate cancer were excluded), while 12 had a brother, father, or uncle who had experienced prostate cancer. (SOW date: October 2016)

Figure 1. Identification of 4 High Risk Neighborhoods



Major Goal 3: Intervention Development Phase

- Prepare Training Materials

We created two educational booklets for the study, one for the intervention arm (PCa education) and one for the control arm (general health education). The PCa education booklet contained information on risk factors, basic anatomy, screening techniques and decision making about screening. The general health education booklet contained information on diabetes, hypertension, and substance use. Table 1 briefly describes the contents of each booklet. (SOW date: December 2016)

Table 1. Contents of the Educational Material.

Intervention Booklet		Control Booklet	
Topic	Brief Description	Topic	Brief Description
PCa Risk	Factors include: age, race/ethnicity, family history, diet, weight, smoking	Annual Doctor Visits	Detection of problems at earlier stage, age based preventive health guidelines
Prostate Information	What it is, where it is, what it does, commons symptoms indicating problem	Respect Your Body	Healthy diet, exercise, sleep schedule
PCa Screening Techniques	PSA and DRE explanations	Drugs	Alcohol consumption, smoking cessation
Screening Decision Making	Discuss screening with Dr./family/friends, Pros and cons, Post-screening	Mental and Emotional Health	Stress, anxiety and depression and their effect on health

- Identify and Train Community Health Educators

Selection of Community Health Educators (CHEs)

Fifteen men applied from the four neighborhoods applied to be a CHE. Most of the men either participated in the focus groups and expressed interest in becoming involved in the project or were referred by men who had attended the focus groups. Each applicant provided two references and a resume, if possible. Potential candidates were interviewed in-person by two team members who assessed their prior experience, interpersonal skills, understanding of the program, presenting skills, time management, organization, and ability to work autonomously. A study team member verified one or both of the provided references. From this process, 10 of the 15 men were offered CHE positions; all accepted the offer to participate.

CHE Training Sessions

The training program consisted of eight sessions over five months (outlined in Table 2). It was developed based on previous experiences and knowledge of the research team. Each of the sessions was conducted in-person and was about an hour and a half in length, resulting in roughly 20 hours of training. The men were also given assignments to complete at home, such as reviewing education materials. The educators were paid \$23 per hour throughout their training. Eight of the 10 men completed the training program.

The first session consisted of an introduction to the project and the research team, as well as an explanation of the role of a CHE. Basic information on PCa was provided and the men were sent home with additional educational materials to review. The second session was devoted to further PCa education along with solicitation of feedback for the project logo. The third session focused on outreach training that included information on verbal and non-verbal interaction skills, tailoring a message for an audience, and appearance and safety during recruitment. [11] We also

reviewed a list of ten important facts to know about PCa, written by the research team. This list included a basic description of the prostate, racial disparities, symptoms, screening options and recommendations, screening pros and cons and PCa management.

Because the CHEs were integrated into the research study, they were required to complete human subjects training. During the fourth session, a representative from the Jefferson Institutional Review Board spoke to the men about informed consent and ethical issues involved in community research. The fifth session was dedicated to the informed decision making process relating to PCa screening. Due to the varying opinions among healthcare organizations' regarding PCa screening it was important for the men to understand the benefits and risks of screening. Benefits of screening discussed included the simplicity of the test and the fact that cancer is easier to treat with an earlier diagnosis. Risks of screening discussed included the unreliability of the PSA test and the fact that not all PCa requires immediate treatment (i.e., .a tive surveillance for early stage low risk PCa).

For the sixth session, the men were introduced to a human subjects training program geared toward CHEs. [12] This program served as a modified version of the standard CITI training program and was beneficial for the CHEs because it is tailored to the community setting with the use of real world examples. The men were asked to complete the online program on their own; arrangements were made for any CHEs without Internet access to complete the training at our worksite. Finally, the men continued to review and provide feedback on study materials.

The seventh session involved a presentation on community outreach and the steps to leading an education session. This included a didactic session on how to facilitate a session in a meaningful and engaging way when participants might find the conversation difficult. The eighth session involved a final review of the intervention education booklet and review and feedback on the study surveys. The men were also able to practice recruitment and education delivery with an emphasis on how to address common problems or difficult situations.

Following the first three community health education sessions the CHE were brought together for a debriefing session where each man was given the opportunity to talk about their experiences. Common challenges were addressed and the men were given the opportunity to practice handling these difficult situations. One hour of this session was devoted to additional training by the Penn Center for Community Health Workers, which addressed topics like time management during the education sessions and keeping sessions on topic. For the tenth and final session, the men were asked to review and give feedback on the control booklet and education materials. The CHE were then given time to practice and become comfortable teaching out of the control education booklet. At the conclusion of training, the men were asked to evaluate their perception of the training program by completing a brief survey. Table 2 outlines the contents of each of the training sessions.

Table 2. Training Sessions of Community Health Educators.

Session #	Topics Covered at the Training Sessions
1	Introduction to project goals/aims, scope of work, overview of PCa screening
2	PCa education; review of study logo

3	Outreach training; top ten to know
4	Presentation by Jefferson IRB on informed consent and research in the community
5	Informed decision making about PCa screening
6	Human research protections training program overview for community researchers, review and edit session materials
7	Presentation on community outreach, steps to leading an education session, review of survey
8	Review final booklet; arguments and counter-arguments for recruitment; practice sessions
9	Debriefing from initial education sessions, identification of common challenges and practice handling these situations
10	Control session training, control booklet reviewed, practice sessions

Attendance during the training program was high considering the part time nature of this work with an overall attendance rate of 69.2% across the 9 sessions. If anyone missed a session, the project manager followed up with them to review the missed material and they were provided assignments to complete at home. In addition to the training sessions, each man was offered times during the researcher's office hours where they could practice giving an education session to an audience. None of the men took advantage of this offer. (SOW date: March 2017)

- Milestones
 - Achieved: Completion of focus groups in high risk areas. Study name changed to "Empowering Men about Prostate Cancer Together (EMPaCT)". Development of PCa educational materials and video. Training and mobilization of community health workers from high risk neighborhoods. Recruitment and conduct of "control" group educational sessions. Establishment of database.
 - In progress: Two publication submissions related to Aim 1. A manuscript related to the study design (all study aims) is in preparation. Major Goal 3: Intervention testing Phase

3.b. OPPORTUNITIES FOR TRAINING AND PROFESSIONAL DEVELOPMENT

Dr. Charnita Zeigler-Johnson (PI) attended the Pennsylvania Prostate Cancer Coalition Conference (September, 2017). She also attended the 2017 North American Association of Central Cancer Registries Conference (June, 2017).

Dr. Leader (co-PI) attended the 2017 CDC National Cancer Conference (August, 2017)

Dr. Earl Bowen (consultant) attended the AACR Conference on the Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved (September, 2017) He participated in the 2017 AACR Scientist-Survivor Program held during the conference.

Dr. Russell McIntire (GIS expert) attended the American College of Epidemiology Annual Meeting (September, 2017)

Ms. Siani Snaith (undergraduate summer research fellow) received training on toolkit development related to Community Health Educators.

3.c. DISSEMINATION TO COMMUNITIES OF INTEREST

Nothing to report.

3.d. PLANS FOR THE NEXT REPORTING PERIOD

We plan to write a manuscript related to Aim 1 to further characterize the neighborhoods of interest and compare them to low risk areas. We will also complete study recruitment. The next steps of the project include analyzing the results of the intervention phase and disseminating the results to communities and other stakeholders.

4. Impact

4.a. IMPACT ON THE DEVELOPMENT OF THE PRINCIPAL DISCIPLINE OF THE PROJECT

Individual patient characteristics do not fully explain the occurrence of advanced disease among prostate cancer cases, and only a subset of patients is at risk for advanced disease and related mortality. Studying prostate cancer within the context of environmental factors may help to

elucidate prostate cancer causes and progression and provide additional information about the groups of men that are at highest risk for advanced disease. To date, targeting populations for interventions has been determined by race or income characteristics of communities. However, all members of a particular race/ethnic or socioeconomic group are not at the same risk for poor cancer outcomes. We have also observed from our analyses that there are differences in the neighborhoods that are at highest PCa risk vs. those with the highest proportions of black/African American residents or low-income residents. The creation of a composite score to objectively identify high risk areas for prostate cancer is novel and can be used by other epidemiologists to study cancer risk and target highest risk communities for focus groups and interventions.

4.b. IMPACT ON OTHER DISCIPLINES

Nothing to report.

4.c. IMPACT ON TECHNOLOGY TRANSFER

Nothing to report.

4.d. IMPACT ON SOCIETY BEYOND SCIENCE AND TECHNOLOGY

Nothing to report.

5. Changes/problems

There were no significant changes in any aspect of this project.

6. Products

6.a. JOURNAL PUBLICATIONS

Although no products related to this work have been published, two manuscripts have been submitted to journals. The manuscripts are entitled “Local Trends in Prostate Cancer Outcomes by Race” under review at PLOS One and “A Prostate Cancer Composite Score to Identify High Burden Neighborhoods” under review at Preventive Medicine. Another manuscript draft is in progress which will describe the methods of the EMPaCT study design.

6.b. BOOKS OR OTHER NON-PERIODICAL, ONE-TIME PUBLICATIONS

6.c. OTHER PUBLICATIONS, CONFERENCE PAPERS, AND PRESENTATIONS

Six abstracts/presentations have developed thus far from the analyses for Aims 1-2:

- 1) McIntire RK, Keith SW, Leader A, Glanz K, Zeigler-Johnson C. Where to Intervene? Methods for Selecting Neighborhoods for a Prostate Cancer Intervention in Philadelphia. National Cancer Institute Geospatial Conference, Bethesda, MD. 2016 Notes: Oral Presentation.
- 2) Zeigler-Johnson C, McIntire R, Keith SW, Leader A, Glanz K. Characteristics of Local Geographic Areas with Low and High Prostate Cancer Risk. 2017 North American Association of Central Cancer Registries, Albuquerque, NM. 2017 Notes: Oral Presentation.
- 3) Zeigler-Johnson C, Keith SW, McIntire R, Leader A, Glanz K. Local Trends in Prostate Cancer: The Role of Race. The Science of Global Prostate Cancer Disparities in Black Men Conference, Orlando, FL. 2016 Notes: Poster Presentation.
- 4) Leader A, Bowen Jr E, Quinn A, Weddington P, Fortune T, Sauls D, Glanz K, Zeigler-Johnson C. Uncovering African American Males' Understanding and Perceptions about Prostate Cancer Screening: Formative Research for a Neighborhood-Based Educational Intervention. 2017 CDC National Cancer Conference, Atlanta, GA. 2017 Notes: Poster Presentation.
- 5) Leader A, Bowen Jr E, Quinn A, Weddington P, Fortune T, Sauls D, Glanz K, Zeigler-Johnson C. Uncovering African American Males' Understanding and Perceptions about Prostate Cancer Screening: Formative Research for a Neighborhood-Based Educational Intervention. AACR Conference on the Science of Cancer Health Disparities in Racial/Ethnic Minorities and the Medically Underserved, Atlanta, GA. 2017 Notes: Poster Presentation.
- 6) McIntire R, Keith S, Leader A, Glanz K, Boamah M, Zeigler-Johnson C. (2017) Methods for Identifying Neighborhoods with High Burden of Prostate Cancer. American College of Epidemiology Annual Meeting, New Orleans, LA. 2017 Notes: Poster Presentation.

6.d. WEBSITES OR INTERNET SITES

An educational video was developed by members of the EMPaCT research team and posted on You Tube for dissemination.

https://www.youtube.com/watch?v=No4_LPg1-Tk&feature=youtu.be

6.e. TECHNOLOGIES OR TECHNIQUES

Nothing to report.

6.f. INVENTIONS, PATENT APPLICATIONS, AND/OR LICENSES

Nothing to report.

6.g. OTHER PRODUCTS

With the help of a summer research fellow, we developed a toolkit that contains training and evaluation components used by the Community Health Educators during the EMPaCT Study.

7. Participating and Other Collaborating Organizations

Name:	Charnita Zeigler-Johnson
Project Role:	PI
Researcher Identifier (ORCID ID)	
Nearest Person Month Worked	4
Contributions to Project	Dr. Zeigler-Johnson leads the project's epidemiology components. She maintains, manages, and analyzes data from the PA Cancer Registry, US Census, and other sources that are used to identify and characterize high risk communities. She also leads weekly and monthly meetings with project staff and consultants. Dr. Zeigler-Johnson led or assisted with abstract and manuscript development/submission, led training sessions for the Community Health Educators, and provided health education for EMPaCt at community sites.
Funding Support	
Name:	Amy Leader
Project Role:	Co-PI

Researcher Identifier (ORCID ID)	
Nearest Person Month Worked	4
Contributions to Project	Dr. Leader leads the project's outreach and focus group components. She coordinated participant involvement in the focus groups and works with outreach consultants to identify community sites study intervention sessions. She also leads weekly and monthly meetings with project staff and consultants. Dr. Leader developed educational materials and identified, trained, and supervised Community Health Workers for the EMPaCT Study.
Funding Support	
Name:	Karen Glanz
Project Role:	Collaborator
Researcher Identifier (ORCID ID)	
Nearest Person Month Worked	1
Contributions to Project	Dr. Glanz contributes her expertise in epidemiology and intervention development to the study. She provides guidance on data analysis, abstracts/presentations, and focus group and intervention conduct.
Funding Support	
Name:	Siani Snaith
Project Role:	Summer Research Fellow

Researcher Identifier (ORCID ID)	
Nearest Person Month Worked	1
Contributions to Project	Siani Snaith was a summer student working with us on EMPaCT. Her summer research involved evaluating our Community Health Educator training program and developing a toolkit for Community Health Educators.
Funding Support	DOD-funded Student Training in Academics and Research (STAR) Program
Name:	Scott Keith
Project Role:	biostatistician
Researcher Identifier (ORCID ID)	
Nearest Person Month Worked	1
Contributions to Project	No Change
Funding Support	
Name:	Anna Marie Quinn
Project Role:	Project Manager
Researcher Identifier (ORCID ID)	
Nearest Person Month Worked	4
Contributions to Project	No change
Funding Support	
Name:	Jill Feldstine

Project Role:	Project Coordinator
Researcher Identifier (ORCID ID)	
Nearest Person Month Worked	1
Contributions to Project	Ms. Feldstine assists the project manager with multiple tasks and coordinates the completion of tasks for the IRB at the University of Pennsylvania.
Funding Support	

7.a. CHANGE IN ACTIVE OTHER SUPPORT OF THE PI/SENIOR PERSONNEL

The original project collaborator at the University of Pennsylvania, Mrs. Sara Grossman, left the institution for another career opportunity. She was replaced by Ms. Jill Feldstine.

7.b. OTHER ORGANIZATIONS INVOLVED AS PARTNERS

- Organization name: University of Pennsylvania

Location of Organization: Philadelphia, PA

Partner's Contribution to the Project: In-kind support (computers), Community Outreach Core support, Community Health Workers (training and support), meeting rooms, and collaboration.

- Organization name: MEE Productions, Inc.

Location of Organization: Philadelphia, PA

Partner's Contribution to the Project: In-kind support (computers), videography equipment, focus group leaders, and collaboration.

8. Special Reporting Requirements

Collaborative Award – Both the Initiating PI and Partnering PI will provide a copy of this report.

9. Appendices

Appendix 1 -- Abstracts

“Characteristics of Philadelphia Census Tracts with High Prostate Cancer Risk”

C. Zeigler-Johnson¹, Russell McIntire¹, Scott W. Keith¹, Amy Leader¹, K. Glanz²

Thomas Jefferson University¹, University of Pennsylvania², Philadelphia, PA

Prostate cancer (PCa) risk varies by census tracts (CT). Using age-standardized incidence (SIR) and mortality rates (SMR), PCa disparities can be studied by focusing on CT with higher than expected rates of PCa. The goal of this study is to determine factors associated with living in high SIR and SMR CT. We geocoded Pennsylvania Cancer Registry PCa data for Philadelphia, PA (2005-2014) to compute SIR and SMR for each census tract. Three PCa risk groups were created: low (SIR and SMR<1); intermediate (SIR or SMR≥1, not both); high (SIR and SMR≥1). Logistic regression models examining low vs. intermediate and low vs. high risk (including patient age, race, tumor aggressiveness, PSA, and CT median income) were used to examine associations with higher risk areas. Models including CT median income showed that high PCa risk CT were associated with increased proportions of older patients (OR=1.32, 95% CI=1.01-1.73) and Black (OR=16.25, 95% CI=13.14-20.10), Hispanic (OR=4.41, 95% CI=3.29-5.92) or other non-white patients (OR=2.31, 95% CI=1.74-3.07). There was a protective association of higher CT median income (2nd quartile OR=0.43, 95% CI=0.34-0.55, 3rd quartile OR=0.20, 95% CI=0.16-0.26; 4th quartile OR=0.17, 95% CI=0.13-0.23). Except for age and 2nd quartile median income, similar associations were found comparing low to intermediate PCa risk CT. Although we detected no independent associations between high PCa risk areas by clinical factors, we observed associations by patient-level age and race and indicators of CT median income. These characteristics can be used to target communities for interventions to decrease PCa risk where SIR or SMR estimates are unreliable or unavailable at the census tract level.

“Uncovering African American Males’ Understanding and Perceptions about Prostate Cancer Screening: Formative Research for a Neighborhood-Based Educational Intervention”

Amy Leader¹, Earl Bowen, Jr.², Anna Quinn¹, Pamela Weddington³, Thierry Fortune³, David Sauls⁴, Karen Glanz⁵, Charnita Zeigler-Johnson¹

Thomas Jefferson University¹, PA Prostate Cancer Coalition², MEE Inc.³, Delaware Prostate Cancer Coalition⁴, University of Pennsylvania⁵

While much is known about males’ awareness and opinions about prostate cancer screening, less is known about how African American males, in particular, view the topic. Additionally, we

sought to gain insight about how a neighborhood-based intervention aimed at increasing informed decision making about prostate cancer screening should look and feel. Four focus groups were held in predominately low-resource neighborhoods of Philadelphia, PA in September 2016. Discussions explored knowledge and attitudes towards prostate cancer screening, understanding of the risks and benefits of screening, and views on making decisions about screening. Participants also shared thoughts on designing a neighborhood based intervention for African American males, including credible message senders, recruiting strategies, culturally sensitive language and dialogue, and incentives for participation. Focus groups were led by a professional moderator who was also a peer of the men. Sessions were video recorded and content analyzed by members of the research team to uncover dominant themes and important recommendations for the future intervention. In total, 22 African American men ages 40 to 69 participated in a focus group (mean age 52; 62% single; 43% with a college or graduate degree). Men had limited understanding of prostate cancer or possible screening modalities, and very few could articulate the risks and benefits of screening. However, the men recognized the seriousness of prostate cancer and the importance of early detection. When designing the intervention, pastors, physicians, city council members, and local civic leaders are all trusted messengers. Recruitment should come from within the community and sessions should be hosted by organizations with strong ties to the community. Sessions should be led by men who can deliver accurate information in plain and simple language and not be judgmental of current behavior or lifestyle choices. The men agreed that a general prevention intervention, rather than one specifically focused on prostate cancer, would draw more interest. Lastly, the men felt that monetary compensation would be important to participation, particularly in low-resource neighborhoods where rates of unemployment are high. While knowledge about prostate cancer screening was low, enthusiasm for bringing information about prostate cancer to men in their neighborhoods was quite high. Understanding the cultural, social, and environmental realities in a community will lead to the development of a much stronger and relevant educational intervention.

“A Novel Approach for Prioritizing Urban Neighborhoods Based on Prostate Cancer Outcomes”

Russell McIntire¹, Scott W. Keith¹, Amy Leader¹, K. Glanz², C. Zeigler-Johnson¹

Thomas Jefferson University¹, University of Pennsylvania², Philadelphia, PA

This study presents a novel geo-based approach to prioritize neighborhoods, based on prostate cancer (PCa) outcomes, for community-based prevention initiatives. We geocoded PCa patient data (n=10750) from the Pennsylvania cancer registry from 2005-2014 and aggregated by Philadelphia census tract (CT) to create standardized incidence ratios (SIRs), mortality ratios (SMRs), and mean PCa aggressiveness. We created a PCa composite variable ($SD = 1.81$) to describe CTs by summing SMR, SIR, and mean aggressiveness. We mapped CTs with the 25 highest PCa composite scores and compared these neighborhoods to those with characteristics related to PCa severity: the 25 highest percent African American (AA) residents and lowest 25 median household incomes. The mean PCa composite score among the 25 highest CTs was 5.68. When comparing CTs with the 25 highest mean PCa composite score to CTs with the 25 highest percent AA residents, only 8 were in common. When comparing CTs with the 25 highest PCa composite scores to CTs with the 25 lowest median incomes, only 2 were in common. Mean PCa composite scores among CTs with the highest percent AA residents and lowest median incomes were 2.86 and 0.51. Ranking of CTs using a PCa composite score is effective for prioritizing neighborhoods. If neighborhoods were prioritized using percent AA or median income, the rankings would have been very different and would not identify neighborhoods with the worst PCa burdens. These novel methods can be utilized by decision-makers when selecting urban neighborhoods in which to intervene for cancer prevention initiatives.